

The Standard Section—What ?

ALLEN LATHAM.

Priority of Location.

DR. C. C. MILLER.

AMERICAN BEE JOURNAL

WEEKLY—\$1.00 A YEAR.

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CHICAGO, ILL., MAR. 10, 1904.

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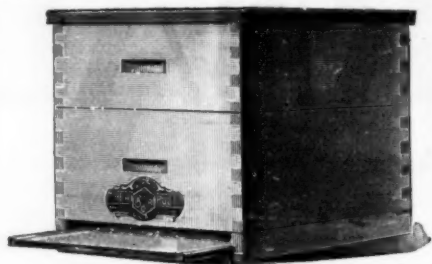


ONE OF SIX OUT-APIARIES FORMERLY BELONGING TO MR. M. A. GILL, OF BOULDER CO., COLO.
(The trees in the background are cottonwoods.)



THE VOICE OF THE PEOPLE

DANZENBAKER'S HIVE.



MORE HONEY. BETTER PRICES.

WE HAVE TOLD YOU SOME THINGS

—ABOUT THE—

DANZENBAKER HIVE FOR COMB HONEY.

NOW SEE WHAT OTHERS SAY.

MORE

HONEY.

MORE

HONEY

AND

BETTER

PRICES.

UNION BRIDGE, MD. Feb. 9, 1904.

The A. I. Root Co., Medina, O.

Gentlemen:—I saw in a recent issue of your paper that you have a department called "Reports Encouraging." I shall send you my report.

I use the Danzenbaker hiv and will give you report of the same, as the few dovetailed hives that I use do not compare at all with the Danzenbaker. One colony gave me over one hundred pounds No. 1 white honey and the rest averaged about sixty, with an increase by natural swarming of one hundred per cent. A friend of mine who uses all sorts and kinds of hives in his apiary succeeded in making scarcely enough honey to pay for the foundation used in the sections. This was about two miles from my apiary. Long live the Danzenbaker hive! It is just the thing for this locality.

Yours truly,

J. B. HOLLOPETER.

MALLET CREEK, O., Sept. 25, 1902.

I have now 250 colonies of bees, of which 170 are in the Danzenbaker hives, and shall have all my bees in Danzenbaker hives next spring. During this past poor season, 30 or 40 of the colonies in the Danzenbaker hives gave over 100 lbs. surplus. On the average I get more than double the amount of honey from these colonies that I do from those in the old chaff hives. With a 7-inch telescopic cover, the Danzenbaker hive winters the bees better than the chaff hives.

VERNON BURT.

I have used both square and tall sections in all my apiaries five years, and know from practical experience that it will pay to discard the 4½ sections, and use only 4x5 sections, and the Danzenbaker hive with the fence separator. They have made enough more this season in the same yard to pay for the hives. I have made more money this season per hive than I have any previous year in my 15 years of bee-keeping. Fifteen of my strongest Danzenbaker hives made me a ton of honey. When it comes to sales I get more for the 4x5 sections, and have no work in cleaning them. I ship them as I take them from the super. This is not the case with the 4½ section. I make honey to sell, and anything that sells the best, and for the most money is what I want out of the bee-business.

S. D. MATTHEWS.

In Gleanings, p. 931, Dec. 15, 1899.

MOUNTAIN VIEW, N. J., Oct. 6, 1897.

I have run my hives largely with the Danzenbaker sections this year, and shall increase my facilities for the Danzenbaker output next year. I sold all my fancy clover in Danzenbaker sections, glazed, to two fancy grocers in New York, at 20 cts. a section; were retailed at 25 cts. each. My 4½ sections, unglazed, sold to grocers at 12½ to 13 cts., retailing 16 cts. I furnished cartons with the 4½, which cost nearly as much as glass.

B. F. ONDERDONK.

**BETTER
PRICES
FOR
DANZY.
HONEY.**

**A RECENT
ORDER.**

**64-PAGE
BOOK.**

**SPECIAL
NOTICE.**

ROCK VALLEY, N. Y., Feb. 22, 1901.

My bees gathered no surplus after July 1. I had only 1200 lbs., but I obtained a fancy price—15½¢ for "Fancy" and No. 1 white, and 14½¢ for No. 2 here at my station for all the Danzenbaker 4x5 plain sections, used on your hives, while I got only 14 and 13 cts. per lb. for the 4½x4½ square sections, and I consider that much difference is worth looking after—don't you? The Danzenbaker hives doubled up, two brood-chambers, are in fine condition, even better than my double-walled hives. I intend to build a bee-cellar and work off my double-walled hives as fast as I can, and get the Danzenbaker hives. Very truly yours,

J. L. HAIGHT.

It is not claimed that so large an advance in price as is mentioned above can usually be obtained for honey in Danzenbaker sections, but because it is more uniformly fancy grade, and of general better appearance it commands the highest prices and a more ready sale in a dull market than ordinary honey.

INDIANAPOLIS, IND., Feb. 8, 1904.

The A. I. Root Co., Medina, O.

Dear Sirs:— Please ship to me as soon as convenient: 500 Danzy. AD64M hives.

Yours,

WALTER S. POWDER.

(This is in addition to all other orders.)

Mr. Danzenbaker's little book, "Facts About Bees," containing 70 pages, giving full particulars regarding this hive and system, is indeed full of facts. If one follows the directions clear through, he is sure to produce a strictly first-class article of comb honey, providing of course there is any honey to be had. This unique little book will be sent free to all who apply for it.

Bee-keepers are raising honey for the money there is in it, or for the pleasure they get out of it. It is conceded by all who have tried this system that it is highly profitable. Reading over letters from the users of this hive who tell of securing large crops of honey almost free from propolis makes us think that the bee-keeper who is in the business for pleasure would be highly gratified with the hive also. What is more satisfying than to take off well-filled supers of snow-white sections free from the propolis that is so often found on sections in cases that are poorly constructed and adapted for the production of a fancy article?

The great popularity of the Danzenbaker hive has brought the shallow brood-frame and the tall plain sections into prominence. It must be remembered that no other hive contains the essential features of the Danzenbaker. The success of this system depends on having everything just right, so you should place your order for the Danzenbaker hive with our main office, or any of our branches or regular agents.

THE A. I. ROOT COMPANY,

BRANCHES:

Main Office and Works, Medina, Ohio, U. S. A.

BRANCHES:

CHICAGO, ILL., 144 East Erie St.
MECHANIC FALLS, ME.

SYRACUSE, N. Y.

PHILADELPHIA, PA., 10 Vine St.

ST. PAUL, MINN., 1024 Miss. St.

HAVANA CUBA, San Ignacio.

San Antonio, Tex., 438 W. Houston.

Washington, D. C., 1200 Md. Av., S. W.

(See list of Jobbing Agents in American Bee Journal, Jan. 7, page 2.)

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

THE OLDEST BEE-PAPER IN AMERICA

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

GEORGE W. YORK, Editor.

CHICAGO, ILL., MAR. 10, 1904.

Vol. XLIV—No. 10.

Editorial Comments

334 Dearborn Street.

This is our new number and street. We moved the office of the American Bee Journal March 3. We are now in a modern office building in the heart of the business district of Chicago. Our editorial office is Room 990 of the Caxton Building. Our friends and subscribers are invited to call and see us at any time in our new office.

Again permit us to call the attention of all to the fact that we are not now in the bee-supply, honey or beeswax business, and have not been since Oct. 1, 1903. We are devoting our time and attention to the weekly American Bee Journal.

The Apiarian Outlook for 1904.

The outcome of the harvest can better be considered some months hence, but bee-keepers are a folk somewhat given to looking ahead, and a look at the horoscope may not be amiss. The prospect is neither all bright nor all dark. California is short on rainfall, and unless there is a heavy fall of spring snows upon the mountains, or an unusual amount of rain next summer, Colorado will also lack the necessary moisture for a heavy crop. In the northern portions of the country the cold has been remarkably severe, and what is still worse, it has been exceptionally uninterrupted, so that a very large number of colonies will fall to respond to spring roll-call.

On the other hand, notwithstanding the severe cold, a mantle of snow has covered a large portion of the country where white clover abounds, and what bees are left will be likely to give a good account of themselves, and their hoardings will not be likely to lack a market. In those portions where there has been no trouble wintering, and where at the same time bee-pasturage is abundant, a year of unusual prosperity ought to be experienced.

In any case, the bee-keeper who bends every energy to do the best he can with what remains may hope for a fair recompense for his labor.

The Bacillus of Foul Brood.

As mentioned some time ago, Dr. Lambotte of the University of Liege, announced that he had discovered that the bacillus of foul brood—*bacillus alvei*—was identical with *bacillus mesentericus vulgaris*, which is abundantly distributed everywhere in Nature. Fresh interest in the matter is awakened by the long article appearing on page 132 of the Bee Journal, written by C. H. W. Weber. Mr. Weber has been an enthusiastic advocate of formaldehyde for the cure of foul brood. Puzzled by the reappearance of the disease after treatment in some cases, he finally accepted as the explanation that in spite of cure the disease reappeared again by means of *mesentericus vulgaris*.

If there are lurking everywhere germs capable of producing foul brood, only awaiting favorable conditions to begin their deadly work, we may as well accept the fact with what grace we may, but it will be an unwelcome fact that makes us believe that the seeds of the disease are everywhere instead of being, as has been heretofore believed, only found in colonies of bees suffering from foul brood. So it may be well

to comfort ourselves with looking for some reasons why we should not believe Dr. Lambotte is correct.

If correct, he ought to have succeeded in producing foul brood by means of the common bacillus that he believes to need only a slight change to become *bacillus alvei*. This he failed to do.

If his conclusions were correct, other scientists should have confirmed them. A considerable time has elapsed since September, 1902, but no other bacteriologist is reported as having confirmed Dr. Lambotte's conclusions. On the contrary, men of ability have expressed their disbelief, saying that the great similarity between the two kinds of bacilli might easily mislead Dr. Lambotte.

There are apiaries—thousands of them—located where foul brood has never yet been known, and foul brood is by no means a scourge of modern times. Is it easy to believe that through all these years there should have been no occurrence of conditions favoring the appearance of the disease? Yet that might happen more easily than that a whole country should remain up to this time immune. And larger tracts than that, even whole countries, have remained free from the disease. There have been cases where it could not be understood that the disease had been brought from elsewhere, and these might be adduced in support of Dr. Lambotte's theory. But it is easier to believe that the germs had been in some unusual way brought from elsewhere than to believe that over so large a scope of country *mesentericus vulgaris* could for so many years have abounded everywhere without ever having found a single colony of bees in which conditions would allow it to produce foul brood. Cases of smallpox occur sometimes where it is impossible to trace their origin, but we do not the less believe that they have come from some other case of smallpox.

Under the old belief, foul brood was bad enough. Under the new it is much worse. Let us not believe the new theory till we have to. As yet we do not have to.

Summering Bees in Winter.

"Bees are summering very nicely in Colorado this winter, thank you."—Rocky Mountain Bee Journal.

Now see how this wild-and-wooly-west editor doth seek a quarrel with those of us who are wondering whether any of our bees will pull through this never-to-be-forgotten winter.

Michigan Farmers' Institute.

A brief report of the annual Farmers' Institute, published in the Chicago Record-Herald, has the following:

Bee-keeping and horticulture were the subjects discussed at the morning session. W. Z. Hutchinson demonstrated that bee-keeping is profitable under proper management. Prof. U. P. Hedrick declared that bees do not injure fruit, as many suppose, and that bee-keepers and horticulturists are mutually dependent upon each other. George E. Rowe made the statement that he would not dispose of his bees if they never stored a pound of honey, because of their advantage to fruit. He considered the damage done to bees by the spraying of trees far less than is usually supposed.

Calling for Honey at Hotels, Restaurants, Etc.

When on the way to the Wisconsin State convention at Madison recently, we had occasion to patronize the dining-car. On the bill of fare we noticed honey. We inquired of the courteous waiter, whose honey they were serving. He replied that he did not know, but would see. He stepped to his "pantry," and looking at the label on the jar of honey, he said, "George W. York's." We said we would try some

of it. He brought out a jar that was nearly empty, containing a long-handled spoon with which to dip it out. So with excellent brown bread and "York's Honey," and some other things, we had a good meal.

We may say that we could not resist the temptation to give the colored waiter our personal card when he placed the honey on the table. You should have seen his eyes bulge out when he saw the same name on the card as appeared on the honey-label. He added, "Well, sah, dat honey am all right, sah, anyway." We told him that we knew it was absolutely pure.

At the hotel in Madison we also called for honey, and were served with some of Wisconsin's best comb honey.

What we wish to suggest is, that whenever bee-keepers are away from home, and it is necessary for them to patronize hotels, restaurants, etc., they should always call for honey. It may very often occur that they will not get it, but it will do no harm to ask for it, and, if such requests are repeated, those who are in charge are more than likely to serve honey later on.

Honey should appear on every bill of fare that is printed for use in any hotel or restaurant. We know of no better way to help bring about such a reform than for bee-keepers to make repeated requests for honey when eating in public places.

Corrections in Average Yields of Honey.

Two errors have been noted in the list of "Big Average Yields of Honey," page 51. The average of Dr. C. C. Miller is put down at 231. According to the General Manager's report it should be 189. Even with the corrected figures as given on page 4, it should be only 223.

The other error is the omission of Otto Sueltenfuss, of Texas, from the list. Mr. Sueltenfuss writes:

"In the spring of 1903 I increased, by natural swarming, to 34 colonies, and extracted from that number, too. The yield of extracted honey was 2760 pounds, as in the General Manager's report. But the 1260 pounds of bulk comb honey were taken from 24 of the colonies. Now, if 100 pounds of comb honey are estimated as equaling 150 pounds of extracted, then my average yield per colony would be 159 pounds. If the comb had been yielded by the 34 colonies, then the average would be 136 pounds per colony. Isn't that right?"

Evidently the 159 pounds average is obtained by dividing the extracted among the 34, and the comb among the 24, and then adding together the two averages. That will hardly do, for it would be getting only the average of the 24 colonies. Neither would it be correct for them, for it would be assuming that each of the 24 stored as much extracted as each of the remaining 10, and the comb honey besides. The correct amount is to be obtained after this fashion:

Adding 50 percent to the 1260 pounds of comb honey to reduce it to extracted honey gives 1890 pounds, and adding to that the 2760 pounds makes 4650 pounds, and for 34 colonies that would be an average of nearly 137 pounds.

Miscellaneous Items

Mr. J. Q. Smith, of Logan Co., Ill., was the first bee-keeper to call on us in our new office at 334 Dearborn St., March 4. Mr. Smith is the inspector of apiaries for Illinois, and also President of the Illinois State Bee-Keepers' Association.

Samuel Wagner, as a great many of our readers know, was the founder and first editor of the American Bee Journal. Mr. A. I. Root, in a recent number of *Gleanings in Bee-Culture*, tells something about Mr. Wagner and his work, which is at once so interesting and of such historical value, that we are glad to copy it in these columns. It is as follows:

In the introduction to the "A B C of Bee-Culture," I have told about getting acquainted with Mr. Wagner through L. L. Langstroth. About as soon as I had looked over the literature of that day, and found what had been done with the honey-bee, I learned from my good friend Langstroth that an American bee-journal had been started, and that Samuel Wagner kept it going one year, and then, through lack of encouragement, together with the breaking out of the American rebellion, it was discontinued. I at once wrote to Mr. Wagner, and a very pleasant correspondence ensued. A copy of the first volume, started in January, 1861, and kept up till December, was secured from him, and was read over and over again. More especially was that part of it read and re-read pertaining to the Dzierzon theory. I urged Mr. Wagner to re-commence the journal, which he did in July,

1866, and I with others very soon became a regular contributor to its pages. I am pleased to notice that one of the advertising sheets has been preserved in our bound volume; and among the advertisers I see H. A. King & Co., Nevada, Ohio; C. P. Bigelow, Perkinsville, Vt.; Adam Grimm, Jefferson, Wis.; A. Gray, Royal, Butler Co., Ohio, and W. A. Flinders, Shelby, Ohio.

Very soon I began to talk about comb foundation made of wax; and my good friend Samuel Wagner was enabled to send me a piece of foundation, or "artificial comb," as we called it then, made of black rubber. I think the impression was made by setting up types made of ordinary type-metal.

Information came in somewhere about 1867 of a comb-emptying machine, and from directions I got from friend Wagner I soon had a machine made, all of metal instead of wood, as the Germans made them. Langstroth briefly described the German machine in a circular put out in 1867.

While I was at work on comb foundation and the honey-extractor, both Langstroth and Wagner encouraged me, and gave me all the information they could obtain in regard to the matter. Many of Wagner's letters during those years seemed to me of more value than the articles with which he used to fill the pages of the American Bee Journal. It seems to me unfortunate now that I did not save them. Wagner (unlike your humble servant) kept himself and his personal affairs very much out of sight in his editorial work. The pages of the old American Bee Journal, away back, were principally occupied by contributors. He very seldom added a footnote, nor interfered unless we got to bearing on each other a little too hard. On one occasion he administered quite a sharp reproof to "Novice;" but it was a little paragraph at the end of my communication that he might have meant myself or any or all of the rest of the correspondents. When it came to exposing swindles Mr. Wagner came out pretty severely and plainly. But there were only a few occasions on which he did this.

The American Bee Journal for March, 1872, announced the sudden death of our beloved editor. The article was written by Father Langstroth, who was at the time paying a visit to his old friend, Mr. Wagner. These two, Langstroth and Wagner, were a pair of God's noblemen. As I look over the pages and recall the past, I fall to wondering whether we have any, just such as they were, left. May be not exactly like them, but God forbid it should ever be said truthfully that the good men—the real noblemen—are all dead and passed away.

It is an inspiration to us to know that the founder of the old American Bee Journal was such a noble man. We wish we knew more about him. He doubtless had a hard struggle with his new venture. It certainly was a risky undertaking. It has ever been so since then, to start a new bee-paper, as most of those who have done so could testify. The fact is, the field is too limited to give sufficient support in order to publish successfully more than three or four really good papers, as experience has abundantly proven.

We wish here to thank the publishers of *Gleanings in Bee-Culture* for giving, in their excellent periodical, the paragraphs we have copied in reference to our honored and honorable predecessor.

Chayote as a Honey-Plant.—We have received the following from Mr. W. A. Pryal, which will be of interest to all:

In looking through the Saturday Evening Post of Dec. 5, 1903, I came across an article that attracted my attention. It was about that phenomenal plant called the "chayote," which, at first glance, might be supposed to be some relative of our famous coyote. The latter is a good-for-nothing beast of small size, of the dog or wolf kind—the other is a plant, as mentioned. So there is no relationship. But to be serious, the chayote is a wonderful member of the vegetable kingdom, if we are to believe all the good things that are said of it in the article mentioned. It is good for man and beast as a food. The writer says "its practical uses are endless." I should judge it is a tuber sending forth a vine that bears pear-shaped fruit, and blooms and ripens fruit every month in the year. In a few months after planting, the vines will yield as many as 500 fruit, some weighing no less than three pounds. This is all very fine, and would induce us to try the plant right off. It is going to be sent out, no doubt, ere long, by our Uncle Samuel's seed and nursery department. Let's get a few plants!

But, ye bee-keepers, this is not all! Lo! and behold it is the very plant bee-keepers have been looking for these many years to fill a long-felt want—and their honey-barrels, too. This, I believe to be so from reading between the lines of the Post article. It states that the plant is especially valuable to our fraternity, as it is wonderfully rich in nectar. I have not been quoting verbatim, but just sufficiently to let you know what a great plant this chayote is. Why have not the bee-papers noticed it before? Or have they done so and I have overlooked such fact?

Chayote is a native of a tropical country, and may possibly be grown in the more southern of the Southern States, and the warmer portions of California and Arizona. Let's watch the chayote. Who will send the first car-load of such honey to market?

We have had more rain—a whole day at a stretch again. It stopped last evening. To-day was another of God's own charming days.

San Francisco, Co., Calif., Feb. 25.

Some months ago we published something about the chayote, written by Kate V. Austin. Who can tell us something definite about its nectar-yielding qualities? If it is what Mr. Pryal intimates, bee-keepers will want to get it wherever it will grow.

W. A. PRYAL.

Convention Proceedings

THE COLORADO CONVENTION.

Report of the Proceedings of the Colorado State Bee-Keepers' Convention, Held in Denver, Nov. 23, 24, and 25, 1903.

BY H. C. MOREHOUSE, SEC.

(Continued from page 168.)

A WESTERN HONEY-PRODUCERS' ASSOCIATION.

H. Rauchfuss—Is it not feasible for us to have a Western Honey-Producers' Association among the bee-keepers of the West—Colorado, Utah, New Mexico, Nevada, and California? The National organization is a little slow, and the Eastern States are not ready. If we wait for all the States, they never will get ready.

QUES.—“What is the most hopeful line of action in decreasing the cost of honey-production?”

Mr. Morehouse—One of the most hopeful fields is in intensive bee-keeping, in getting more out of each colony of bees.

H. Rauchfuss—I think we now well know how to produce honey. It is a more serious question how to dispose of honey than how to get it. Much is on the market now that should have been sold long ago. Co-operation will help a great deal to attain that point, and it will help in producing the honey as well as in selling it.

F. Rauchfuss—Which is the more profitable, intensive bee-keeping, or running a large number of colonies?

Mr. Morehouse—I can not answer by experience, only by analogy. In other lines of production, in farming and the like, it is now pretty well demonstrated that working over a small area is more profitable. I think the time is coming when 400 colonies will produce as much as a thousand, and more.

F. Rauchfuss—A Nevada man, who called at the store, told me he had 780 colonies in two yards, and his brother had 1200 colonies in a number of yards, and the proceeds from his own bees far exceeds that from his brother's bees. He produces comb honey while his brother produces extracted, but still he gets a low price for his comb honey.

Mr. Aikin—When we are properly organized for distribution, I think intensive bee-keeping pays better. Up to the present I have lacked in distributing facilities, owing to the long distance from a market, and so have branched out more. With better distributing facilities there is more profit to small producers, and intensive methods come into play. I have for a number of years been endeavoring to reach out so as to succeed in marketing by sending enough at a time to reduce the freight-rates. There is a better opportunity now for extension in both lines.

H. Rauchfuss—I move the chairman be instructed to appoint a committee to confer with other local organizations of other States, and find out whether it is feasible for us to form an organization of the Western States. [Carried.]

Mr. Aikin—It is not out of place in this convention to consider the business end of the question. One might say the proper place for its consideration is with the Colorado Honey-Producers' Association. But, after all, in one sense the Honey-Producers' Association and the State Association are not separated. Their distinctive features are, that one is literary and one is for business. The proper channel, of course, through which other organizations accept our plans is through the business branch of our organizations. The people of the Western Slope are to come in as a branch of the Colorado Honey-Producers' Association. It is true, there is a difference in the handling of bees there, but there is no difference in the business handled.

H. Rauchfuss—It is not my idea for the Colorado Honey-Producers' Association to be the head and the others merely branches, but that all should be together. This is just to express our feelings, and get our members to take an active part.

The chair appointed as the committee, H. Rauchfuss, F. H. Hunt, J. N. Pease, H. C. Morehouse, D. W. Working, and F. L. Thompson.

As a committee on the manufacture of supplies to report at the next meeting, were appointed H. Rauchfuss, F. H. Hunt, and H. C. Morehouse.

STIMULATIVE FEEDING OF BEES.

“What is the best method of stimulative feeding?”

Mr. Hagen—I looked around here last spring for the best hive, and I got it. [Mr. Hagen exhibited the “Acme” hive and its parts.] It has the best cover, and the nicest arrangement for taking off honey by using the inner cover as a bee-escape, and the two covers, in connection with wooden lard-dishes, make the best device for stimulative feeding. I set the lard-dishes on top of the inner cover, and the bees come up through the hole in the center and get the feed. When the outer cover is set on it holds the dishes in place. Another little kink I might speak of is in moistening sections. I always use a spring-bottom oil-can to squirt the water in the right place.

Mr. Hagen also exhibited a Mason jar of strawberries that had been put up in cold honey. These were sampled by the convention, and found to retain the flavor of the fresh strawberry to a remarkable degree.

SINGLE-TIER VS. DOUBLE-TIER CASES.

F. Rauchfuss—I have been requested by several to compare the relative merits of single-tier and double-tier shipping-cases. We have had a good deal of experience in receiving shipments of honey in single-tier cases. It always ships poorly, and especially so in local shipments. The freight classification rules require that the glass be covered. On account of the shape of the case the average freight handler does not know what is in it, and as he always has a stick in his back, he drops the case to the floor instead of stooping to set it down. The effect on the section combs may be imagined. He is likely to know what is in the double-tier case, and on account of its shape, if he does drop it, it does not drop so far. He frequently steps on a case to reach up to something. If it is a single-tier case the cover gives to such an extent as to cause his weight to come down with but little diminished force on the tops of the sections, causing them to give in turn, so that the combs are slightly squeezed, and the honey oozes out. If it is a double-tier case the cover does not give near so much, and some part of his weight is likely to come over the edges of the case anyhow, and thus be supported without doing harm. When transported on express and transfer wagons, the single-tier case is much more likely to be set on its side edgewise to fill up some convenient space in the wagon, which is the worst possible position for the combs within, when the load is being bumped over the streets. On the grocery shelves the single-tier case occupies more space and displays less honey. The double-tier case meets grocery requirements the best. As to the objection of two tiers, there should be paper between the two tiers, and no leaky honey should be put in. The proof of the pudding is in the eating. We have had inquiries for car-load lots of double-tier cases. When I was East visiting the honey-buyers in all the large cities of the middle West, I made it a point to inquire if there were any trade objections to the double-tier cases, and found none.

Mr. Aikin—I have had bad luck in shipping in single-tier cases. One reason was that they were so often stood on one side. But the others, being more nearly in the shape of a cube, were rarely set that way.

H. Rauchfuss—The double-tier case has a small surface, and twists easily when forces are applied at different points. When that happens the sections inside are twisted, too, and the combs slightly fractured.

GRADING HONEY.

Mr. Hagen—I have always been careful about grading honey. I notice the Denver commission houses sell a good deal of cheap honey at 25 or 30 cents a case less than a first-class article. I have sold a number of car-loads, and would always guarantee every section in a case to be No. 1 that was sold as such. I made it a rule to put in the second grade anything that was under 14 ounces, or off color. I had another grade for 12 and 13 ounce honey, and anything less than 12 ounces was sold after melting it up. From 80 pounds of cull honey I would get in the neighborhood of 6 pounds of wax. I aimed to have bait-combs. Bee-keepers ought to be educated to have two grades.

H. Rauchfuss—If you have three or four sections in a case that are not quite up to the standard, leave them out and put them in a separate case. You may get 10 cents a case more for the sections that are left. And that is not

all. You may have three or four sections per case in the second grade that are almost too good for the second, though not quite good enough for the first, so that you raise the average, and probably the price, on the second grade, too, and thus raise the price on them both. Another point in grading is always to use the same standard throughout the season. The honey is white when you first take it off, but the last taken off is not so good, and you are apt to think the last as good when it is not, and thus have a different standard in your mind at the end of the season. Thus, what you put in the first grade at the end of the season may not be so good as that graded second at the beginning of the season. By selecting certain sections as patterns to go by, and keeping them on hand throughout the season, you may always *preserve the same standard*.

(The End).

Contributed Articles

The Standard Section—What Will It Be?

BY ALLEN LATHAM.

TO a large extent the standard section will be the one which by chance or otherwise gets to be used by the majority of honey-producers, and may not of necessity be the most desirable. For years the standard section has been the $4\frac{1}{4} \times 4\frac{1}{4}$ of indefinite width, but now the bee-supply people are striving (whatever their purpose may be) to make a taller and a narrower section become popular.

There has come into use also the plain section. This seems to be an excellent thing, and will probably grow in favor. Only time will determine whether it will entirely supersede the bee-way section. For the purpose of argument I will assume that the plain section is in a few years to be our only section. If so, it is of prime necessity that the section of the most desirable dimensions come to the front.

Let me speak first of the shape. Shall the section be square or oblong?

Is it any argument in favor of a tall section to say that our doors and windows are usually taller than broad? I fail to see any good reason there. Probably not one person in one hundred would think about such a matter, and surely not one in a thousand would let his purchase be affected.

It is argued that more surface is presented by the oblong. This is true in the case of the 4×5 . The difference is too trifling.

It is further argued that more sections can be set on a given surface. True, but the desirability of such increase is not proved. The increase in depth of super may retard the bees in their taking possession of the same. Many a person would say: "Give me a shallower section still for rapid super-work."

It is also argued that bees build comb downward faster than sidewise. Is this of any value where full foundation are used? And by the way, where do most sections show lack of finish, at the sides or at the bottom? A toss up.

"A tall section will bear shipping better," may be true, but if so it is not so much owing to the height as to lightness of honey and increased amount of wax proportionally. Remember that most of our tall sections are thin.

In the reasons offered above there is much truth but little weight, by far too small amount of weight to call into popular use a section which has so many disadvantages.

First of all, the tall section is harder to handle. It breaks easily. It tips over easily. The increased comb-surface renders it especially liable to injury and consequent leakage. These reasons alone would prevent my adopting the tall section.

The argument that more can be put into a super almost captured me. But analysis of the statement dissolved that impression. The increased number means increased space, and increased space means delay in taking possession of supers. With tall sections the second super will not go on till after the second super of shallow sections has work well progressed, so that in the end there is loss.

Of course we can not gainsay that tall sections bring more in certain localities. Round sections would probably out-sell either, and sections of all sorts and shapes, espec-

ially alphabet sections, would have a great run. If we only knew how much of this sale was to be laid to the account of fad we should know more about it.

Every one is free to choose, and some will probably vote for the tall section. I believe that most of us after giving each a good trial, will raise both hands for the square. I, for one, am too clumsy to use a section which has such unstable equilibrium, and should ruin enough choice sections to cut a big hole in any better price they might command.

The second part of my subject is more important by far. What shall be the thickness (usually termed width) of our standard section? Assuming that the $4\frac{1}{4} \times 4\frac{1}{4}$ is standard, shall it have for its other dimension $1\frac{1}{2}$, or more?

I am told on the best authority that this section, when only $1\frac{1}{2}$ inches wide, will hold only 15 ounces of honey even when the bees are crowded for room, and that it usually runs down to 13 or 14 ounces. Do we wish this? These sections are called, and will be called, *one-pound boxes of honey*. Do we, as bee-keepers, who pride ourselves upon our honesty and square dealing, wish to do this?

What if honey-dealers do say that they prefer light weights, as some say they do? Shall we be dishonest because they prefer that? Perhaps we are not dishonest, but we surely make it easier for some one else to be. I should like to say right here that a few years ago I had much dealing with a certain honey-firm, and this honey-firm was strongly in favor of full weights.

I wish to protest strongly against a section which is under weight. I wish that every other bee-keeper whose honesty responds to these words would send in his protest.

It will never be possible to produce section honey with just 16 ounces to a section, but it is possible to use such a section that there will be as many 17-ounce sections as there are 15-ounce ones. I believe that any loss in number of sections produced will be more than offset by our steadier sales of honest-weight product.

If, then, bee-keepers are honest, it is obvious that a section more than $1\frac{1}{2}$ inches wide must be used. Yesterday I cut through a large number of sections, measuring the thickness of the combs. I found that the average full-weight section must be a plump $1\frac{1}{2}$ inches in thickness of comb. Whether this means a section $1\frac{1}{2} \times 16$ or one $1\frac{1}{2} \times 17$ I am at a loss to say. I shall use the $1\frac{1}{2}$ section next season. If it proves too large I shall cut it down to what will bring the desired result.

I believe that our standard section is to be $4\frac{1}{4} \times 4\frac{1}{4}$ by such other dimension as is found by actual use to give average 16-ounce boxes of honey.

New London Co., Conn.

Bill of Rights to Protect Bee-Keepers in Priority of Location.

BY DR. C. C. MILLER.

A GOOD many years ago I got into trouble by saying that I believed there should be legislation that would protect a bee-keeper in his territory. At that time there was little sympathy—indeed, if there was any sympathy whatever with the thought it was left unexpressed; and the general sentiment seemed to be that there was no need to say anything about the matter of encroaching upon territory, because it would regulate itself.

But there seems to be a growing feeling that something should be said, and even that something should be done about it. That feeling was distinctly voiced at the Los Angeles convention, to which Mr. Hasty refers, page 105. The only reply was, in substance, the one Mr. Hasty has worded, "You can't do anything about it." That, however, was an advance over the sentiment of years ago, which seemed to be, "You can't do anything about it, and you ought not if you could."

I have no desire to use space to argue the right of a man to a certain territory as a bee-keeper; the time has gone by for that; but I want to say with what emphasis I may, that whenever bee-keepers are agreed that they want such a law, a law can be framed that will protect a man in his rights as a bee-keeper just as much as the law protects a man in other agricultural pursuits.

Mr. Hasty thinks we should cultivate the doctrine of doing right in regard to every other brother's bee-territory. *require* it of every man that he respect such rights, and suggests that "A carefully worded and forcible declaration of these rights, etc., might be one effective way to do something, in place of doing nothing from year to year." And

when such a bill of rights is carefully worded, Mr. Hasty thinks we could depend on public sentiment to do the rest. Very good, Mr. Hasty, as far as it goes; and nineteen out of twenty would respect your "bill of rights," indeed would do so in any case. It's the twentieth man that we're after, and when you say to him: "There's the bill of rights; now respect it or you'll be considered an Ishmaelite and a scamp," he'll coolly say to you: "Consider and be hanged; I care more for the dollars than I do for what you consider me." It is no great compliment to our legal luminaries to say that among them there is not sufficient ability to frame a law that shall embody that carefully worded bill of rights; and that shall say: "There's the bill of rights; now respect it or suffer the penalty attached." Nothing short of that will reach that twentieth—perhaps I ought to say that hundredth man.

The hard part is the careful wording of that bill of rights; when you get it worded it's as easy to enforce it upon the twenty by law as it is upon the nineteen by public sentiment.

Take the case, Mr. Hasty.

McHenry Co., Ill.



How I Winter My Bees Outdoors.

BY A. J. KILGORE.

I HAVE a cellar that would answer very well for the purpose of keeping my bees over winter if it were not for the fact that I have a furnace in it for heating the house, and it is difficult to keep the temperature low enough. In fact, I did not think it a possible thing to do to keep the bees in the cellar and use the furnace at the same time, but I see in Dr. Miller's "Forty Years Among the Bees," he is trying the experiment. I think, however, I would best let the veterans try such projects first, and I will continue for the present to winter on the summer stands, which I have been doing up to the present time, with very fair success in a way that I will try to describe:

I use principally the Danzenbaker hives, which are the same in outside dimensions so that the outside winter-case that I use will suit either style of hive. To make the winter-cases, take lumber cut from boxes gotten at the shoe-store and grocery store; these cost from 5 to 10 cents each, and some I get for taking away. It requires about 3 boxes to make 2 winter-cases. I get from the planing mill corner-pieces $1\frac{1}{2}$ inches, outside measure, which cost me about $\frac{3}{4}$ cents per linear foot; these I use for the corners to nail the boards to, in order to make the case strong, and to have a finished look. These corner pieces are cut 20 inches long, corresponding to the height of the case.

The size of the case is 20x24 inches, leaving 2 inches all round for packing, and from 6 to 8 inches for packing on top. I nail the case together, square it, and then put on the bottom and cover. The bottom, of course, extends in from the sides all around only 2 inches, leaving an opening in the center the size of the hive. The top is made with the joints fitted close but without an effort to making it turn the rain; it is then covered with good tarred paper cut $\frac{1}{2}$ inch larger all around than the wooden cover, leaving no nail-holes to let the rain leak through. The case is now completed, but as you will see, all in one piece. I now rip it in 2 pieces, cutting about 12 inches from the bottom; small pieces about $\frac{1}{2}$ inch square are nailed on each corner of the bottom part of the case on the side extending $\frac{1}{2}$ to $\frac{3}{4}$ inch above the top of the bottom; these are to hold the top part in place when on.

I move the hive forward about $\frac{3}{8}$ inch on the bottom-board and place the bottom part of the case over the hive, letting it rest on the bottom-board. I then take a strip of 2-ply tarred paper 18 inches wide, and long enough to go around the inside of the case and lap 6 or 8 inches. This is put in the bottom part of the case as a lining; this, you will see, will reach up about 8 inches above the top of the hive or honey-board. I use a honey-board 16x20 inches, made by using 2 pieces $\frac{3}{4}$ x $\frac{3}{4}$ x20 inches, and nail a board from the old box, cut 16 inches long, jointed up close. I now fill the 2 inches between the hive and the case with fine dry planer-shavings, putting 6 or 8 inches on top of the case, and the job is done.

It will be noticed now that the bees have as a protection the walls of the case $\frac{3}{8}$ inches thick, a lining next of 2-ply tarred paper to keep out all moisture and wind from the outside, then 2 inches of dry planer-shaving, then the walls of the hive with 6 or 8 inches of dry planer-shavings on top; then covered by a wooden cover to the case with tar paper

on top, so it is impossible for moisture from the outside to dampen the packing. I put in this condition in October or first of November, and leave them so until the weather is settled and warm in the spring, say about the middle of April. I then take out the shavings and the tar paper lining, and keep the empty case over the hive during the entire summer; it is some protection from cool weather and damp, cool nights, and from excessive heat on hot days, and by raising the cover a little and blocking it up on the bottom-board it allows room enough for 2 supers. Then I need no hive-covers other than the honey-board and casing cover. I figure the entire cost of each case, when I made it myself: Lumber 15 cents; corner pieces 4 cents; tarred paper 10 cents; total, 29 cents. If painted the cost will be about 10 more.

With a young queen, with colony strong in young bees, and well supplied with good stores and cased as described above, I find my winter loss very small.

Wood Co., Ohio.

Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

Swarming—Introducing Queens—Feeding Bees, Ordering Queens, Etc.

I see Dr. Miller "loves to talk about bees." I just wish he could "lend me an ear" sometimes, for I almost have to resort to talking to myself. My husband says I talk him to death about them, and he "no like" bees. Last summer I had a hearty laugh at his expense. A swarm issued and clustered on a limb just out of reach. I was sick in bed, so my husband was pressed into service (though not at all delighted). He stood upon a barrel and was cautiously sawing on the limb while I watched from the window, when all at once the barrel tipped, which caused him to break the limb, and man, barrel, bees and limb were in one confused heap on the ground. But the man didn't stay there. I could see nothing on him but dust.

I have been studying "Forty Years Among the Bees" this winter, and I intend to try the "foundation plan" for would-be swarms. (By the way, Dr. Miller is my model, and I wish I knew how to make my little boy grow up just like him.)

Last fall, when I had some queens to introduce, I had great difficulty in subduing the bees, though I had handled them minus gloves before that. If I'd open a crack large enough for the nozzle of my smoker they would whiz out like pent-up steam. Smoke? They didn't mind that at all; go down the nozzle riding in a perfect stream of smoke; boil out at the entrance over the hive—anyway to get to me.

I make a note of any question that puzzles me, therefore I am generally ready with quite a string of them. Please answer the following:

1. After finding nearly every comb contained sealed honey to the bottom (the harvest being ended and brood-rearing about over), I concluded they had not where to stick their heads. The next time I had to molest any of them (now you who know a better way are likely to smile, or even laugh) I took a little extracted honey that wasn't nice for table use anyway, and quickly poured it all on top of the frames, replaced the cover, and waited a little. Well, I didn't even light the smoker. (You know lions are generally fed when they roar.)

2. What is best to do with a colony occupying 4 or more frames if found queenless early in the spring, if no queen is on hand to give them? (I don't care to reduce my number.)

3. Would it be safe to order queens from the South in March (I am in latitude of Norfolk, Va.), or can they be obtained of Northern breeders as early as that? If so, from which place would it be best to order?

4. I wish all of my hives to have two stories next spring, but I haven't extra combs for three. What is the best to do, give a story of foundation, putting it underneath the brood-chamber?

5. If I give a new swarm one or two drone-combs, and the rest starters, would they build all-worker comb from the starters?

MRS. C. D. MEARS.

1. That was a pretty good way, but why not take the

common plan given by Langstroth 50 years ago, that of sprinkling a thin sugar syrup over the top of the brood-frames. In either case you must be *very careful* not to start robbing, and there is a good deal less danger of robbing when the sugar is used than with the honey. A little honey outside the hive after the honey-flow has ceased, where the bees can get at it, seems to set them crazy after more, and they will act like so many little demons.

You would better watch pretty sharp that none of the honey or syrup leaks out, either through the bottom-board or out of the front of the hive. You can't be too careful about robbing.

2. Unless good queens can be given them, better unite with a colony having a good queen.

3. I think you can get them from the South, but not from the North at that time.

4. Yes, they will work down into the foundation as soon as they need the room, but not so promptly as into drawn combs.

5. With so much drawn-comb as that, there would not be much likelihood of their building more; but full sheets of worker foundation will make a sure thing.

Recipe for Honey-Cakes.

Three pounds of honey, 3 pounds of flour, 1 ounce of powdered ammonia, a small teaspoonful of ground cloves, 6 ounces orange peel cut very small, 4 ounces of sweet almonds cut small.

DIRECTIONS.—Pour the honey in a copper or enamelled pan, and set on a stove or quick fire. When it boils, draw it aside and remove the scum (as honey boils up very quickly, great care must be taken not to let it boil over). Then pour the honey into the vessel in which the paste is to be made; leave it to cool; then add flour and other ingredients except the ammonia, which latter must not be added till the flour and honey has been mixed up, and the paste has become quite cold. In preparing for use, place the ammonia in a cup, pour on a few drops of cold water and stir it well so as to form a thick paste, then mix it up with the rest. Then take a piece of the paste, roll it out into a cake not over $\frac{1}{4}$ -inch thick, and cut up into convenient sizes as desired. This done, put cakes on a flat tin (which must be greased beforehand), and bake from 12 to 15 minutes in a hot oven.—British Bee Journal.

Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

RECORDING HIVE-MATTERS—WINTERING.

I see Mr. Holekamp records hive-matters on a slip of paper and puts it under a brick-a-top the hive. Why not use section-sides instead of slips of paper? Then rainy weather can not muss up the record.

His lath gridiron to put over the frames under the winter cushion seems to be an excellent form of the Hill device, and more easily made than the "wooden spider."

Apparently he makes his winter-cases so small as to leave no room for stuffing for the definite purpose of being able to lift them off sunshiny days. That's a very decided advantage; but the question is, Doesn't he pay too much for it? Most of us, if we were to forego the stuffing and packing, would forego making the cases also, and the whole thing would be lost. Page 40.

BEST STYLE OF SECTION.

Not easy to get the answers to the section-question into statistical form. Two dodge; two more are not in shape to make their meaning clear; and five more either straddle, or at least do not take a definite position for any one thing. Few, or none, seem to think it very important what section is used. The established style of square section has a younger brother that differs only in being thinner. Two or more want this, and 10 out of 18 wish the $4\frac{1}{4} \times 4\frac{1}{4}$ section—and thick enough to hold about a pound. Most of the remaining 6 are for 4×5 section. The questions of plain

versus insetted, and one-piece versus four-piece, are not very fully taken up. Page 41.

THAT PURPLE-COLORED HONEY.

I'll guess that the purple honey, page 42, was white clover slightly mixed with something else, which, if pure, would be very dark, almost black—only enough of it to make a slight impression on the general flavor.

HATCHING HEN'S EGGS OVER BEES.

So eggs put under a hen felt warm to the hand in about an hour, while over a powerful colony of bees (July) they persisted in feeling cool—not only for one hour, but for 24 hours. 'Pears like the bee-hive-hen idea has got a pretty heavy thump, if not a total knock-out. For such an experiment 25 eggs were far too many. And I guess the burlap and wire gave too much upward (and downward) ventilation. And a colony with the maximum of brood I guess would be much better than a recent swarm. To demonstrate whether or not certain good folks have been fibbing to us a bit, some one in July start some eggs for a week under a hen, and then put three of them over a powerful old colony with cotton batting both under and over them—and the usual top-surface of the brood-chamber either not cut into at all or open only for a few square inches.

In spring, when our hands are cold the undersides of cushions feel very warm; but that (we know when we think a moment) is largely an illusion. Quite likely the actual degrees of temperature are too few by ten or more to start eggs to hatching. If we can't say, "A new way to hatch chickens," let's have it, "A new way to keep eggs fresh." Pages 43-46.

TESTING BOILED HONEY FOR BEE CANDY.

The testing of honey boiled for bee-candy I have always thought to be an awkward thing. Mr. Dadant, on page 53, simplifies it nicely. Touch cold water with your finger and immediately touch the hot candy. When the thin film that adheres is brittle the candy is done. I could do that myself without getting things into a muss.

OBSERVATORY-HIVE BEE-KEEPING.

Interesting to see how an observatory hive can be made to build a new all-worker comb each 24 days. The journal of the observatory hive is interesting also. Wintering 3000 bees on a single comb right in the window—most of us would have predicted failure at that. Also putting a little lamp below them to help out as to warmth in very cold weather, is a "ticklish" operation of which the best said is, "All's well that ends well." And it swarmed twice (not the lamp, but the bees next summer). One would expect an observatory hive to have to have young bees given to it from time to time rather than to be sending out young bees as a swarm. And the feed required for the season was some 20 pounds of sugar. Wish he had explained a little why he is so very urgent in favor of a north window rather than some other facing. Allen Latham, page 53.

Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

Hives in Pairs—Early Queen-Rearing—Moving Bees Several Rods.

1. In setting hives in pairs, two on one stand, with only a small spacing between them, do you turn the entrances in opposite directions? And in your experience do you think it makes much difference whether a hive faces east or west, north or south?

2. I sometimes want to rear a few queens early in the season, before drones are flying in this latitude, and would also like to suppress drones as much as possible, in my own apiary, which is largely hybrid, and have my young queens mated with other drones. Would it pay to get a 2 or 3 frame-nucleus of sealed drone-brood from the South?

3. How long would such drones live and be serviceable?

4. I ought to move a part of my apiary several rods, to give the "gude wife" a little more room for her young chickens. Could I do it in the spring? and how would I best proceed so as to lose as few bees as possible?

INDIANA.

ANSWERS.—1. The entrances of a pair of hives on the same stand both face the same way. In an apiary well sheltered from the winds,

as where a hedge surrounds it, or where buildings are on the windy sides, it matters little which way the hives face. Where hives stand out in the open in a cold country with strong winds, there will be more suffering if hives face toward prevailing winds, especially with large entrances. In such a place it is well for the hives to have their backs to the wind, with entrances in spring closed all but about a square inch, even though it might not do to have so small an entrance through the winter.

2. I don't believe it would pay. Better give up the idea of rearing queens before the time when drones are plenty. If you want to control the matter of drones, instead of trying to do it early, do it late. You can keep some drones of choice stock in a queenless colony after drones are killed off.

3. I don't know. If I should make a guess, it would be till 6 or 8 weeks old.

4. The day before their first flight would be a good time. It's hard for you to tell just when that will be, and the next best thing will be the next day after. After moving put boards in front of the entrances so as to bother the bees the next time they fly out. It might also be well to fasten the bees in the hives the first day you think it is warm enough to fly, and let them fuss trying to get out for two or three hours before opening the entrances. That will help to make them mark the location. If you pound on the hives after imprisoning them, that will make a shorter imprisonment necessary. But look out for smothering them.

Kind of Hive and Honey to Begin With.

1. Which would you recommend, an 8-frame dovetailed hive, with frames $17\frac{1}{2} \times 9\frac{1}{2}$, and heavy top-bar, or a 10-frame Danzenbaker hive?
2. At this time, which would you recommend to a beginner with bees, producing comb honey, extracted, or bulk comb honey?

NEBRASKA.

- ANSWERS.—1. I prefer the dovetailed.
2. That cannot be answered in a word. It depends on the locality, the market, and the man.

To Test Beeswax Adulteration.

How can beeswax be analyzed? How can I tell if there is tallow in it?

ILLINOIS.

ANSWER.—If there is tallow in it, it will have a greasy smell and a greasy feeling. Root's "A B C of Bee-Culture" gives a specific gravity test. Put a piece of beeswax that you know to be pure in a jar partly filled with water, and add alcohol till the wax sinks just to the bottom. Then put in your suspected sample, and if it does not sink to the bottom you may pronounce it adulterated.

Foundation Plan of Preventing Swarming.

1. How did the foundation plan described in your book, "Forty Years Among the Bees," work in 1903?
2. Would you advise this plan in the production of comb honey, where a moderate increase is wanted?

IOWA.

ANSWERS.—1. Conditions and trying other things crowded out the foundation plan for preventing swarming, so that it wasn't tried in 1903.

2. Good plan if it works perfectly with you. So try it on not too large a scale.

Wintering Bees in a Glass Hive—Introducing Queen-Cells.

1. Would bees winter satisfactorily in a 10-frame Langstroth hive, 3 sides of which are glass, providing it was well packed in an outside or winter-case? Or, to be exact, would they winter in an observatory hive on the winter stand, if well protected?

2. Can a brood-frame having a queen-cell be put in a queenless colony and be accepted by a colony the same as if a queen-cell were grafted on one of their own frames?

CONNECTICUT.

ANSWERS.—1. They ought to winter nearly if not as well as in an ordinary hive.

2. Just as well, and in some cases a little better; for when a cell is grafted in the bees sometimes seem to think there's something wrong about it, and tear down the cell.

Moving an Apiary—Stimulating Feeding.

1. Can I move, as shown on the enclosed diagram, the whole distance at one move without losing some bees, by going back to the old stand?

2. I am very much interested in bees, but I am so situated now, that I cannot give them proper attention. I have some 12 box-hives. Do you think I could get good results by boring holes in the top, and placing supers above?

3. I wish to feed my bees to stimulate breeding. Which is the best to feed, sugar syrup, sugar candy, or molasses candy? Or is there anything better?

TENNESSEE.

ANSWERS.—1. It is a question of moving bees only a few rods, not so safe a thing as moving a mile, yet if you can move them at a time

when they have not had a flight for some days there ought not to be much trouble. When you move them, be sure not to leave any stands, and if you can make some changes in the appearance of the old place it will help, as it will not look so much like home to them. It will also help if, after you have set them in the place, you set up a board before each entrance so as to obstruct the direct flight of the bees.

2. Yes; the first bees I ever had were in half a barrel, and the first honey I got was obtained by boring holes through the top and setting a box over. Allow pretty free passage; 2-inch hole, or several smaller ones.

A Beginner's Question.

I have 3 honey-combs. How will it do to get 3 queen-bees and put them on the combs about the middle of April? I don't think the bees will swarm here till after the first of June.

MISSOURI.

ANSWER.—I see no reason why it should not work all right; indeed I would feel very positive about it were it not for the fact that so many times when I've decided a thing for the bees, they, instead of relying upon my judgment and doing as I said, as intelligent bees should do, have gone right ahead and done just the opposite. So, although I may tell you what the bees *should* do, you'll have to refer the matter to them to find out what they actually will do.

Placing Hives—Wax-Worms and Spiders.

1. How close can hives be placed without interfering with each other?

2. Will the wax-worms trouble combs after they (the combs) have been thoroughly cleaned by the bees?

3. Will the wax-worms trouble foundation after it has been put in the frames and stored away for spring?

4. Will spiders hurt comb foundation, or will they protect them against the destructive wax-worm.

You did not miss it far, when you answered my father's question about dead brood, as we transferred our bees from some old hives into some of our own make, and found a few worms. We make our own dovetailed hives and supers, and can do it at a very little cost.

LOUISIANA.

ANSWERS.—1. If you want to occupy as little ground as possible, put the hives in pairs. The two hives of a pair may sit facing the same way, as close as you can put them without actually touching. Then allow a space of two feet or more in the row between the pairs, and then another row back to back against the hives of the first row. That, as you will see, makes the hives in groups of four. Any additional number of rows may be placed by having an alley way, between, said alley being eight feet or more in width.

2. Yes, indeed.

3. It would not in the North, and probably not with you.

4. They will protect them from the moth, but not from worms if the eggs of the moth are already there.

Chilled Queen—Medium vs. Light Brood Foundation—Brushed Swarms, Etc.

1. Will a queen that was chilled coming through the mails be all right next spring?

2. Does medium brood foundation give enough more wax to the bees to make it pay better than light brood foundation?

3. In making a brushed swarm, how would it do to take away all the brood but one comb of capped brood, filling out the rest with foundation?

4. Will a young queen, reared July 20, be old enough next June to have drones in the hive?

5. What time do you put the super under the brood-chamber in the spring for the queen to lay in? or do you use a double brood-chamber?

6. In your text-book you give a plan of ventilating the upper stories by shoving them forward and back, leaving a space at one end. Does the rain not get in through the space?

MANITOBA, CAN.

ANSWERS.—1. Hardly; but if you want to breed from her you may get good stock, even if she lays so poorly as to be of little value for honey.

2. It will probably be better economy to use the thinner foundation if you can do so without having it sag.

3. It will be all right; indeed I have given several combs of sealed brood satisfactorily, making sure there was no young brood.

4. Yes.

5. As soon as, or a little before, the first story is filled, I put under it a second story of the same kind, reducing to one story of brood when sections are given.

6. I suppose it does, but it never seems to do any harm, being at the end. At any rate, the harm is overbalanced by the good.

Cold Winter—Early Stimulative Feeding.

Up to this date, the winter having been extremely and almost unheard-of cold, my bees, which are on the summer stands in the loft of a barn, have not taken their usual noonday flight in January and February.

By referring to my notes of previous years, I see that the bees in 98 were out for the first time on Feb. 6; in 1899 they were out early

in February, and even the 3d of the following December. Last year they flew several noons in January and February. What the spring results will be is hard to say, yet I am not alone. Most of us here in New England are realizing that we are experiencing a most severe winter. I fear a poor showing next spring of the bees wintered on summer stands, as is the prevailing custom here, the thermometer readings having been anywhere from 6 to 30 degrees below zero (W. Johnsbury, Vt.) not only for one day, but for several days at a stretch. I am anxious to know how the bees kept summer and winter in a loft will come out next spring, compared with those kept in hives out-of-doors.

Now, if the thermometer stands low for one or two weeks to come, would you advise any feeding of candy, syrup, or meal, to stimulate brood-rearing? Or would you leave the hives unmolested until real spring days? Could not some feeding be done to advantage some warm noons, which invariably must come sooner or later?

MASSACHUSETTS.

ANSWER.—Unless there is immediate danger of starvation, better not think of feeding till bees fly nearly every day. If you feel a little shaky about this advice, try it on a single colony, and the result will probably be such that you will be thankful you didn't try it on all.

Bees and Fruit-Drying—Uniting for Comb Honey.

1. I have a neighbor that seems concerned lest my bees injure his fruit in drying it. Now anybody with bee-sense at all knows that bees will not, neither can they, carry off any fruit. They will bother some during drying pears—sipping juice—that is all. They do more good in pollenization than they could do harm any other way. What I want to know is this: Could he declare them a nuisance, by law? and could he make me move them, they being here before he bought his present location? Has there been any court decisions on such matters that could help me in case of trouble? I don't anticipate any, but I want to be forearmed. Where can I have access to such without going to the expense of consulting a lawyer?

2. In running for comb honey I understand it is necessary to keep colonies very strong. Now, will it be advisable to double two strong colonies and leave them together all during the honey-flow? or shall I divide again in the fall?

CALIFORNIA.

ANSWERS.—1. Yes, there have been trials and court decisions, and more than one bee-keeper has been helped through by means of the National Bee-Keepers' Association. Your wise plan will be to become a member of that Association before you get into trouble—it will be too late afterward—and that will only cost you a dollar a year, and

perhaps heavy lawyers' fees. The General Manager can furnish you valuable literature on the subject. You can become a member by sending your name and one dollar either to the General Manager, N. E. France, Platteville, Wis., or to the Editor of this paper.

2. No, you would probably lose rather than gain by uniting two good colonies before the honey harvest.

New Combs for Extracting—Queen-Excluder—Swarming Management, Etc.

1. Can new combs be used for extracting when built on full sheets of comb foundation and wired?

2. How many Langstroth frames should be given at first to a good, strong colony?

3. Can the queen-excluder be laid down flat on the top-bars and the super placed on top, or should there be a space between the top-bars and the excluder?

4. How about putting the sealed brood above when the bees swarm, and take the unsealed brood away and run the swarm in on starters?

5. How long since man first discovered that bees gather and store honey?

6. How long have bees been kept in boxes or hives of any kind?

7. Why not throw away that tool-basket, and put them in the hive-seat you are packing around there. ("Forty Years Among the Bees," pages 63 and 75.)

WEST VIRGINIA.

ANSWERS.—1. Yes, but while they are new and tender it is well to use caution in extracting if they are very full. Turn not too rapidly, and extract perhaps half the honey on one side. Reverse the comb and extract all of the other side. Then reverse again and finish up the first side.

2. All that the extracting super will hold.

3. If you use a plain sheet of perforated zinc, lay it flat on the top-bars; if you use a wood-zinc, slat honey-board, there should be a space below and above the excluder.

4. It will likely work all right, but sometimes they will swarm out again. It will work better just before swarming.

5. I can't tell to a day, but it was more than 3500 years ago.

6. That's harder yet; I give it up.

7. The tool-basket is light and handy to take to different apiaries, and each apiary has its own quota of seats. But I am rather changeable, and there's no certainty what I may be using next year. As I grow older I may become less changeable.

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FROM MANY FIELDS

Bees All in Good Shape.

I have 5 colonies of bees, all in good shape at the present time. I am fond of reading the Bee Journal; I would not give it up for all the other papers that come to my address.

W. H. HOBERT.

Muscatine Co., Iowa, Feb. 21.

Bears and Bees.

Several months ago a correspondent stated that he wished to start an apiary in a region infested with bears, and asked for advice along the line of preventing their ravages in the proposed apiary. I have waited for some one to help him, through these columns, but no one having done so I will try my hand. I suppose he has long ere this established his apiary, yet the advice may be acceptable.

I will admit, right on the start, that while I have had for many years experience with bees, and have hunted and trapped bears, still I never was troubled with bears in the apiary, so perhaps I cannot give as good advice as some man having an apiary in a remote mountain district.

I think an ounce of prevention is usually worth a pound of cure, therefore I would try to exclude the animals from the yard, and believe that if the ground was of such a nature as to admit the setting of posts, that a strong and high barbed or woven wire fence would fill the bill; perhaps the Page Fence could furnish something that would answer.

If this plan is not feasible here is another: Bears are very fond of any kind of sweets, hence their desire to rob the hives. Take any receptacle—a small syrup-keg sawed in twain, making two small tubs; put a few quarts of syrup into these tubs, and mix a small amount of strychnine (about a teaspoonful to four

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PAGE

IF A HEAVY HORSE

should run into Page 23-Bar Poultry Fence it would stop him, and not damage horse or fence. PAGE WOVEN WIRE FENCE CO., Adrian, Michigan.

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gallons); the poison should be dissolved in a little water, and then thoroughly stirred into the syrup. Place these tubs in or near the haunts of the animals, and you will soon be rid of them. Small troughs chopped out of slabs of wood will do very well in place of the kegs. If you wish to take the animal alive, use a No. 5 Newhouse trap for black or brown bears, and No. 6 for grizzly or silver-tip. These animals will walk into a trap as readily as a hog. Place them in their trails, or bait them with the carcass of some large animal, and set the trap in such a manner that the animal in coming to the bait will pass over the trap. Do not fasten the trap, but secure the chain to a small log termed a clog, so the animal can drag it around. Bears can then be shot at short range with a rifle or heavily charged shot-gun. J. A. NASH.

Spokane Co., Wash., Jan. 22.

May Be Heavy Winter Losses.

This is a hard winter for bees that are being wintered out-of-doors here in the northeastern part of Wisconsin. They have had no flight since the first part of November. I fear for them if the weather does not change soon so they can have a flight. There may be some heavy losses to report this spring.

C. H. VOIGT.

Manitowoc Co., Wis., Feb. 25.

A Report—Selling Chunk Honey.

I have wintered my bees on the summer stands, and last spring came through with about 50 colonies, most of them weak, and some very weak. They got but little from early bloom, such as soft maple, willow, etc., and but little more from fruit-bloom, so my only chance was feeding, which I did, and by judicious management otherwise I had them in fair shape when white clover came into bloom; but they stored no honey, and barely got enough to live on and keep up brood-rearing until at least two weeks of clover bloom were gone. Prospects really got a little blue, but suddenly the tide changed and they began to store in the sections, and stored very fast during the remainder of clover bloom, which ended the honey harvest, as they got nothing from basswood, and the fall flow was merely sufficient to keep up brood-rearing and strengthen their stores for winter.

I got 2300 pounds of honey, and increased to 67 to 68 colonies. I could have increased much more, but did not wish to do so. While they were inclined to swarm a good deal, they were not so crazy and demoralized as in the two previous seasons.

I sold my honey in the home market at an average of over 14 cents per pound. Including what we used, I supplied 6 groceries in the city of Huntington, and many families. While much honey was sold in Huntington for 12 cents per pound, I had no trouble in selling mine at 15 cents. The secret of it is, I sold nothing excepting first-class honey, put up in first-class shape; the appearance of it sold it without any palaver. It is astonishing to see in what shape some people market their honey—the comb often as white as snow, and the honey first-class in quality, but stored in sections that had done duty for several years—soiled, and covered with propolis until an expert could scarcely tell whether they were made of wood or some other material; and then used without separators, so the comb is bulged into all kinds of shapes. No wonder dealers want to cut down the price on such stuff. It would be a blessing if such beekeepers could or would realize the injury they are doing the industry by such slovenly, slipshod methods. Let me give just one instance that I saw:

A grocer showed me honey, white as snow, that he bought; the man who sold it brought in a 28-section super just as it was taken off of the hive, not taken apart, and all covered with propolis, and no separators used. You know how it looked. The grocer agreed to buy it and pay 10 cents per pound for what he could use. In tearing it apart he found 13 sections that contained brood, the other 15 had beautiful honey in them, only a little bulged, and would readily have sold for 15 or 16 cents per pound, if put in proper shape.

I was much interested in Mr. Hyde's paper

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on chunk honey, read before the National Convention. I commenced a few years ago to sell chunk honey on a small scale, and without much effort have built up quite a little trade in the business. At first I used only broken or bruised sections, or sections that were only $\frac{1}{2}$ or $\frac{3}{4}$ sealed, but lately I have used quite a number of shallow frames. I cut the comb out and place it neatly in a $\frac{1}{2}$ -gallon covered tin pail, filling the pail even full, and then run in enough extracted honey to make 5 pounds, which usually fills the pails. I sell this at 14 cents per pound, adding the price of the pail, and pay back the price of the pail if returned in good condition.

Some furnish their own vessels, and take sometimes a 2 or 3 gallon jar full. I consider this a drawing card; while it lasts, it outsells section honey. People have got to calling it "bucket honey," and many of the first families of Huntington and Warren buy it. Some buy it largely for their own use, and then buy a small quantity of section honey for use when they have company. I can make more money producing and selling this at 14 cents a pound than section honey at 18 cents. The only drawback is pollen in the shallow frames; sometimes half the frames in a super have pollen in them. Can any one give a remedy for this? This trade has worked itself up without any special effort to push it, and I will try to cater more to it the coming season than ever.

I have my bees packed on the summer stands. I can't tell now how they will come through, but I fear the loss will be heavy. They have had no general flight since early in November, and there is little prospect of their having any soon; and if this zero weather continues much longer many colonies will die.

A. H. SNOWBERGER.

Huntington Co., Ind., Feb. 4.

Cocklebur.

On page 106, there is a question in regard to "Cockleberry," and Dr. Miller's answer to the same. There is no such thing as "Cockleberry." It is "cocklebur"—a weed I feel sure Dr. Miller is perfectly familiar with. I kept bees in Louisiana some years ago, and got a little honey from it, but not often. I feel sure that the main part of the honey came from something else.

E. T. FLANAGAN.

St. Clair Co., Ill.

Jouncing Bees—Combs Buckling.

MR. EDITOR:—I notice that you have thrown overboard the egg-hatching-on-a-colony-of-bees humbug. I think it a great privilege, and certainly very instructive, that you give space for our experiences, but it is too bad that sometimes we have bee-stories as well as fish and snake stories. I tried another scheme, in the shape of jouncing bees out of a super. Well, I made such a jouncer, according to description, and began jouncing. I guess my bees did not understand what I wanted, so they got mad, when I concluded to let them have the jouncer and I made a bee-line for the house, which I reached minus a pair of spectacles.

The next colony I wanted to jounce I smoked before I began jouncing. I jounced until I jounced comb and frames to pieces, and the more I jounced the more the bees seemed determined to take possession of the leaking honey. I thought perhaps my failure depended on locality, but I took my jouncer and jounced it against the wall, for it reminded me of some 40 years ago when I learned the cabinet-making trade, and some one, on April Fool Day, sent to me for a "square" auger-bit!

I think if we sent our failures to the papers they would often be as instructive as our successes. For my part I am never ashamed to confess my blunders; and how I do admire Dr. Miller, when he says, "I don't know;" for then my confidence is doubly strong in him when he says he does know.

Some three years ago there was a controversy between an African bee-keeper and Mr. Dadant, regarding the use of comb foundation, and the African claimed it was the ones interested in its manufacture or sale that advocated its use most. I had at that time, as I have now, the highest esteem for Mr.

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Dadant, but in this case I thought our Afri-cander might be to a certain extent correct, and I gave, that year, only narrow starters. Now I have the experience and about 500 poor combs. They are irregularly built, many of them at best are fastened only $\frac{1}{2}$ of the way down the side-bars; they flab and break in the extractor. Some have the midrib not in the center of the frame, and others have more drone than worker cells. Take it altogether, not one quarter of them are fit for use in the brood-chamber.

In "Editorial Comments," page 51, mention is made of a Mr. M. W. Shepherd as being perhaps the first one to give the philosophy of the buckling of combs. This statement breaks my silence, and as this troublesome buckling is an entirely mechanical fault, I have given it considerable study, as a mechanic, not as a bee-keeper. I have as badly buckled combs as any one can show, and I have others that are as nice and level as if they had been leveled with a smoothing-plane. I am not going to blame the foundation or frame material for those poor combs, for we know it of old that poor mechanics always fight with their tools. As my good and poor combs were made of the same lot of material, only at different times, the fault must be with me (and I found it was).

Mr. Shepherd claims that when the side-bars are but $\frac{1}{4}$ -inch thick, the wires tight, and the comb becomes loaded, the side-bars will spring, the wire slackens, and the comb buckles. With due respect to Mr. Shepherd, I will leave it to the house to decide whether his explanation sounds reasonable. I would judge that when the side-bars spring, and the wire slacken, the combs will sag, but not buckle.

If you expose comb honey in sections to frost, they will crack, and if you tap with your finger on a frame with an empty, frozen comb it may break. This and a hundred other things prove that wax contracts in cold and expands in warmth. If you make frames in winter, and imbed the wire in the foundation, you do this at a time when the wax is contracted. When you give these frames to the bees in summer, and the wax becomes warm in the hive it commences to swell, but as it is crowded between tight wires it will bulge or buckle at once, and I had frames that were buckled when I gave them to the bees. When a tailor makes a suit of clothes he expects a certain amount of shrink in his cloth, which he takes out before he cuts it. When I give comb foundation to the bees I know there is, or will be, a certain amount of stretch in the wax, which I want out first, and the way I proceed is as follows:

I make the frames in winter. I wire them and fasten the foundation to the top-bar, but I do not imbed it. The next summer when I am about to use them I placed them in a real warm place, and when I want them I take some, imbed them, and give them to the bees at once.

I think this ought to solve the question of buckling combs; but still I would like to hear from others.

L. H. CREMERS.

Jo Daviess Co., Ill., Feb. 1.

Drone's Influence on the Workers.

In a late editorial, it is asked if we have any proof that the drone (or rather the drone stock) has more influence on the worker-bees than the queen.

As a matter of fact, we should expect this to be the case. Among the higher animals, the concourse of both sexes is needed for the production of the offspring, and therefore we may suppose that the offspring takes its characteristics equally from both.

With the bees it is different. The drone has no father; he is born from an unfecundated egg. But let the egg be fecundated and it will produce a female, and nothing but a female—queen or worker. Such being the case, we can expect that the characteristics of the worker come chiefly from the drone.

As to positive proof, we all know that workers from a mated Italian are more like the black bees than the Italians, at least as far as temper and disposition to run off the combs are concerned.

Mr. Doolittle says that when he first intro-



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You will save money buying from me. Catalog mailed free. Send for same. Book orders for Golden Italians, Red Clover and Carniolan Queens; for prices refer to my catalog.

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CONVENTION NOTICES.

Michigan.—The Northern Michigan bee-keepers will hold their annual convention March 30 and 31, 1904, in the Montague Hall, 127 Front St., Traverse City, Mich.

GEO. H. KIRKPATRICK, Pres.
Rapid City, Mich.

Kansas.—There will be a meeting of the Arkansas Valley Bee-Keepers' Association, at Hutchinson, Kans., Mar. 5, at 10 a.m. All bee-keepers and others interested are respectfully invited to be present. FRED WILBER, Sec.

Utah.—The spring convention of the Utah Bee-Keepers' Association will be held April 5, at 10 a.m. and 4:30 p.m. Among other important questions to be considered will be the World's Fair, our State Fair, and the Portland Fair of 1905. We also desire to formulate some plan, if possible, to further increase the fraternal interest for the mutual benefit of our bee-keepers. We cordially invite all bee-keepers to be present. We also invite them without delay to send in their views on these and other topics. The convention will be held in the City and County building, in Salt Lake City.

Salt Lake City, Utah. E. S. LOVESY, Pres.

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Open to both sexes from the beginning. Founded in 1846. Highest grade scholarship. First-class reputation. 25 instructors. Alumni and students occupying highest positions in Church and State. Expenses lower than other colleges of equal grade. Any young person with tact and energy can have an education. We invite correspondence. Send for catalog.

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20 Wood-bound 10-frame Zinc Honey-Boards	15c each.
1080 New, Clean, Wired Extracting Combs (L. size)	15c each.
420 New L. Brood-Frames with full sheets wired foundation	10c each.
400 Good L. Brood-Combs	12c each.
1 "New Model" Solar Wax-Extractor (glass 26x60 in.)	8.00.
1 Wooden Honey-Tank with galvanized iron bottom (holds 1800 lbs.)	10.00.
1 6-inch Comb Foundation Mill	15.00.
1 10-inch Comb Foundation Mill	25.00.
100 New L. 10 fr. Dovetailed Hives (each consisting of a Body, Cover and Bottom-Board—all nailed)	95c each.

If you order Combs and Hives, the Combs can be put right into the hives and shipped in that way. All the above can be shipped promptly, so long as they last. First come, first served. What do YOU want out of the lot? or do you want it all? (No order filled for less than \$5.00 from the above list.) Also BEES AND QUEENS, and Stanley Queen Incubator. Send for free Circular

Address, ARTHUR STANLEY, DIXON, ILL.

Dr. Miller's New Book

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New Subscribers.

The book contains 328 pages, is bound in handsome cloth, with gold letters and design; it is printed on best book-paper, and illustrated with over 100 beautiful original half-tone pictures, taken by Dr. Miller himself. It is unique in this regard.

The first few pages of the new book are devoted to an interesting biographical sketch of Dr. Miller, telling how he happened to get into bee-keeping. Seventeen years ago he wrote a small book, called "A Year Among the Bees," but that little work has been out of print for a number of years. While some of the matter used in the former book is found in the new one, it all reads like a good new story of successful bee-keeping by one of the masters, and shows in minutest detail just how Dr. Miller does things with bees.

HOW TO GET A COPY OF DR. MILLER'S
"FORTY YEARS AMONG THE BEES."

The price of this new book is \$1.00, post-paid; or, if taken with the WEEKLY American Bee Journal for one year, BOTH will be sent for \$1.75.

Or, any present regular subscriber to the American Bee Journal whose subscription is paid in advance, can have a copy of Dr. Miller's new book free as a premium for sending us Two New Subscribers to the Bee Journal for one year with \$2.00. This is a magnificent offer, and should be taken advantage of at once. For many of our readers it is not only an easy way to earn a copy of the book, but at the same time they will be helping to extend the subscription list of the old American Bee Journal, and thus aiding also in spreading the best kind of apicultural information among those who would be successful bee-keepers.

Address all orders to

GEORGE W. YORK & CO.,
334 Dearborn Street, CHICAGO, ILL.

duced Italian queens in his apiaries, there were none but pure black bees in his neighborhood. The workers from the first mated queens were necessarily a first cross between Italians and blacks. He says that in nine cases out of ten, the hybrid workers exhibited the characteristics of drone stock. The workers from Italian queens and black drones would show the temper and the disposition to run from the combs, and the habit of capping the honey white, which belongs to the black bees. On the other hand, the hybrids from black queens mated to Italian drones would have all the traits peculiar to the Italian bees. He does not say anything about the color. (See Bee-Keeper's Review, Jan., 1902, page 20.)

ADRIAN GETAZ,
Knox Co., Tenn., Feb. 4.

A Good Average Locality.

I have 12 colonies of bees which I think are in good shape. It is warm to-day, and they are having a warm flight for the first time in 2 weeks. The bees did fairly well last season, but swarmed too much to get much honey—about 50 pounds per colony. From what information I get through the "Old Reliable," this section is on an average with other sections. I can say this much for our section, we seldom ever have to feed any. The average is about 50 pounds per colony, spring count. J. R. ENSLEY.

Jackson Co., N. C., Feb. 9.

An Appreciative Apiarian Reader.

Allow me to say, as one barely initiated into the deeply interesting science and art of bee-keeping, that the American Bee Journal is a superb aid to the novice. It is cheap, indeed, at the price of \$1.00.

It is so consoling for the troubled apiarist to be able to get solace, comfort and light from the kindly Dr. Miller—himself an encyclopaedia of bee-knowledge.

If I am ever tempted to write an article for the American Bee Journal, it shall certainly be on the theme of the mistakes I have made in my youthful bee-keeping. Now, that I have been perusing the Journal and referring to the standard books on the subject, I regret to say I lost many a dollar last summer by not doing what I ought to have done, and by



This is the Limit

A Hot Water, Self-Regulating, 50 egg incubator \$4.50, and up for Brooders. All on 30 DAYS' TRIAL. No agents. You pay no middlemen's profits. See catalogue for "100% Hatches." Write BUCKEYE INCUBATOR COMPANY, Box 53, Springfield, Ohio

Returning Eyesight—A Bee-Keeping Sister's
Gratitude.

I want to tell how much my eyes have improved with one month's treatment. I have commenced the second month's treatment. If they improve as fast with the second as the first I don't believe I will need any more. I was blind in my right eye. It was cataract, and they said I had a serious case, but faithful use of their treatment would make a complete cure. Now it is giving way around the outside, and getting thinner all the time. I can see the motion of my hand in front—almost see the shape of my hand—and to hold my hand to the side of my face and look straight forward I can see my hand plainly, and can almost see the lamp. I can see the blaze, to hold my head up and look at the lamp, or hold it down and look over the top. So you see there is quite difference in not being able to see the least ray of light. I had to wear two pairs of glasses to read or write; now I can see best with one pair.

The treatment I am using is that of the Chilian Remedy Co., of Bushnell, Ill. Their advertisement is in last week's Bee Journal, and has been before. Now don't any sister, or any one else, go to a hospital until they have tried these remedies. I am at home and attend to my work without any inconvenience. I know this is not about bees, but our editor is so good I think he will be willing to give it a place in his paper for the good of others. If it had not been for the Bee Journal I would still be blind, and its value to me is more than I can tell you, as therein I found the advertisement, and knew it was right or it would not have been in the Bee Journal.

MRS. SARAH J. GRIFFITH,
Cumberland Co., N. J., Feb. 15.

doing what I ought not to do. To illustrate: I left the supers on a few weeks longer after the honey-flow ceased, and I became thereby the proprietor of a choice selection of unfinished sections. I know of some neighboring bee-keepers who get little or no return from their bees because unappreciative of scientific progress; they are still and stationary, whilst the scientific bee-world moves along. They do not read the bee-papers, and therefore they keep bees as their great-grandfathers did.

Apiarian knowledge should form one of the topics on the program of Farmers' Institutes. Thus it must be popularized. People do not yet realize what an adjunct to the revenues of the farm scientific bee-keeping is; hence it should find a place alongside the other minor agricultural sources of revenue. Above all, it should be insisted on as indispensable that the reading of an up-to-date bee-paper, containing practical, pithy, approved apiarian methods of procedure, should be a prime necessity to success.

E. D. RUSSELL, M. D.
Webster Co., Iowa, Feb. 3.

A Steady Cold Winter.

I now have about 75 colonies of bees. We had the poorest season last year we have had since I have been in this business. My wife takes most of the care of the bees now, and she is quite an expert in the bee-line.

We have had the coldest winter known; to-night the thermometer registers 10 degrees below zero; 4 inches of snow, and the wind blowing a March gale. We are about 12 miles from the coast, and the dampness from the Sound or sea water makes the air seem colder than it does farther up the State, with the thermometer down to 40 degrees below zero.

I hope the bees will pull through; they are all packed in chaff hives and heavy cushions, but it has been such a steady cold that they could not move much. THAD H. KEELER.
Westchester Co., N. Y., Feb. 16.

DAVENPORT,

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Send your orders for everything in BEE-KEEPERS' SUPPLIES to the city nearest to you. Save Freight and get prompt service. We are headquarters for LEWIS' NIVES AND SECTIONS. DADANT'S FOUNDATION. ROOT'S SMOKERS, EXTRACTORS, ETC., ETC.

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In no-drip shipping-cases. Also Amber Extracted in barrels or cans. Quote your best price delivered Cincinnati. The Fred W. Muth Co.
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Let us quote you prices on Sections, Hives, Foundation, etc., as we can save you time and freight. Four percent off for cash orders in December.

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BELL BRANCH, WAYNE CO., MICH.
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HONEY AND BEESWAX

MARKET QUOTATIONS

CHICAGO, Feb. 8.—The demand is better for all grades of honey than at any time since the beginning of December of last year. Stocks are now being reduced, but at the same time prices are easy. Many have had it so long that they are anxious to make sales. No. 1 fancy white comb honey sells at 12@13c; amber grades, 10@11c; dark, etc., 9@10c. Extracted, white, 6@7c, according to quality, kind and flavor; amber, 5@6c. Beeswax, 30c.

R. A. BURNETT & CO.

CINCINNATI, Feb. 8.—There is a fair demand for honey, but nearing the end of the season for comb honey, with large supply, has pressed the prices; fancy white, 13@14c; amber, in barrels, 5 1/2@5 3/4c; in cans, 1/2c more; alfalfa, water-white, 6@6 1/2c; fancy white clover, 7 1/2@8c. Beeswax, 30c.

C. H. W. WEBER.

PHILADELPHIA, Feb. 8.—There has been a decided decline in comb honey since last quotations. Bee men who have little lots held back and are afraid they can't dispose of it before warm weather, are shipping it in, selling at any price they can get, breaking the market decidedly. We would quote fancy white at 14@15c; No. 1, at 12@13c; amber, 10c. Extracted, white, 6@7c; amber, 5@6c. Beeswax, 31c. We are producers of honey and do not handle on commission.

WM. A. SELSER.

CINCINNATI, Mar. 4.—The demand for honey is brighter than it has been in the past 60 days. We continue to offer amber extracted in barrels at 5 1/2@6 1/4c, according to quality. White clover extracted is a drag on the market at 6 1/4@8 1/2c in barrels and cans. Comb honey seems to be reviving at 13 1/2@15c for fancy.

Beeswax, 30c. THE FRED W. MUTH CO.

ALBANY, N. Y., Feb. 1.—Honey demand very light. Prices of comb honey are largely now what the buyers will offer—from 10@15c. We look for better demand when weather is warmer. Extracted doing some better at 7c for white, 6 1/2c for mixed, and 5 1/2@6c for dark and buckwheat. Beeswax, 28@30c.

H. R. WRIGHT.

BOSTON, Feb. 9.—There is little change to note in the honey market. Strictly fancy Eastern honey is scarce. Western honey will not bring as much here. We quote fancy white in glass-front cases at 16c; No. 1, at 15c. Supply is ample, and demand light at this time. Extracted, water-white, 8c; light amber, 7@8c; with but little call for dark Florida.

BLAKE, SCOTT & LEE.

KANSAS CITY, Feb. 24.—There is no change in the price of comb honey; the supply is large. The receipts of extracted are large and the demand very light. The market price is: Fancy No. 1, comb, 24-section cases, \$2.25; No. 2 stock, \$2.00. Extracted, white, per pound, 6@6 1/2c; amber, 5 1/2@6c. Beeswax, 30c.

C. C. CLEMONS & CO.

NEW YORK, Feb. 27.—Demand for comb honey has slackened off considerably, and while there is some call for white, receipts are heavier than the demand and in quantity lots, quotation prices are shaded more or less. We quote fancy white at 13@14c; No. 1, at 12c; amber, at 11c. There is no more demand for dark honey whatsoever, and we would not encourage shipment of this grade. Extracted honey is quiet at unchanged prices. Beeswax in good demand at from 28@30c.

HILDRETH & SEGELKEN.

SAN FRANCISCO, Feb. 17.—Extracted, white, 5 1/2@6c; light amber, 4 1/2@5c; amber, 4@4 1/2c; dark amber, 3 1/2@4c. White comb, 12 1/2@13c; amber, 9@11c. Beeswax, good to choice, light, 27 1/2@29c; dark, 25@26c.

The steamer Newport, sailing on Saturday, the 6th, took 115 cases extracted honey for New York. Local demand is light. Extracted is not in heavy spot supply. The prospects of an early cleaning up of comb honey are not at the moment particularly encouraging.

HONEY AND BEESWAX

When consigning, buying or selling, consult

R. A. BURNETT & CO.,

199 SOUTH WATER ST. CHICAGO, ILL.

Please mention Bee Journal when writing.

Wanted to Buy!

100 colonies, or less, of BEES for SPOT CASH, in or near Northampton Co., Pa. State kind of hives used and price wanted. Crystal Poultry Yards, 88 So. Franklin St., WILKESBARRE, PA.

8A4t Please mention the Bee Journal.

The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



[THIS CUT IS THE FULL SIZE OF THE KNIFE.]

Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a last-time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelties," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00.) We will club the Novelty Knife and the Bee Journal for one year, both for \$2.00.

GEORGE W. YORK & CO.

Chicago, Ill

5A Please allow about two weeks for your knife order to be filled.

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—THE—

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ST. LOUIS, 1904.

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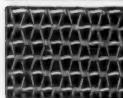
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Bee-Keepers' Supplies OF ALL KINDS.

Langstroth on the Honey-Bee—Revised

The classic in Bee-Culture—Price, \$1.20, by mail.

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Our HIVES far better "than Father used
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